USERS INSTRUCTION MANUAL

168-4A-12Ah

ATTENTION
Read all parts in this manual before operating your scooter

168-3A3-12Ah

FOREWORD

Please read and follow all instructions in this Users Instruction Manual before attempting to operate your **FR 168-3A3/4A** Scooter for the first time. If there is anything in this manual that you do not understand, or if you require additional assistance for setting it up, contact your authorized **Freerider** agent.

Using your **Freerider** product safely depends upon your diligence in following the warnings, cautions and instructions in this manual. Using your **FR 168-3A3/4A** Scooter safely also depends upon your good judgement and/or common sense, as well as that of your Provider, Carer or Health Professional Always think safety!

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INTRODUCTION

Congratulations on the purchase of your **Freerider FR 168-3A3/4A**.

Please read this User Instruction Manual carefully before you attempt to operate your FR 168-3A3/4A Scooter. Your User Instruction Manual will assist you to get the most from your machine.

This manual contains important information regarding the safe operation and maintenance of your scooter. Before beginning to use your Scooter, make sure you completely read and understand all instructions thoroughly. Please observe the "Rules for safe use" and the Safety Instructions outlined on pages 4, 5, 10, 11, 12, 13 & 14 of this manual. If you have any queries concerning operation or maintenance, consult your authorized Freerider dealer.

Please keep in mind that the operator of the scooter is responsible for accidents or hazards occurring to other people or their property.

Your **FR 168-3A3/4A** has numerous features not found on other power Scooters. With proper care and maintenance, you will enjoy many years of dependable service.
Your FR 168-3A3/4A Scooter needs to receive maintenance at regular intervals and should be inspected frequently for proper mechanical operation. Trouble shooting guidelines, methods of detecting improper operation and making minor adjustments are included in this manual.

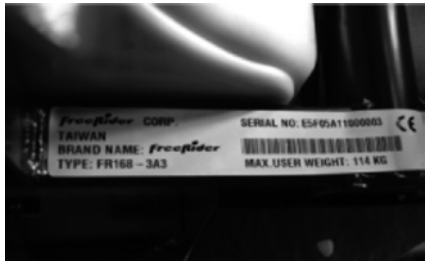
Follow all recommendations to obtain trouble free, safe and enjoyable operation of your Freerider scooter.

Please remember that when it comes to service and repairs, your authorized **Freerider** dealer knows your Freerider **FR 168-3A3/4A** Scooter best.

GUARANTEE TERMS

GUARANTEE TERMS
Please keep a note of your serial No. .....

(This is located on a plate under the front body cover).



Your **FR 168-3A3/4A** is guaranteed for 12 months from the date of purchase against faults arising due to defects in manufacture or materials. This guarantee does not detract from, but is in addition to your legal rights. Parts replaced or repaired under the terms of this guarantee will be covered for the balance of the 12 months period. This guarantee applies only to parts supplied or approved by **Freerider®**

Due to the individual prescription nature of this product. This guarantee is not transferable.

Note: Extended guarantee insurance can be arranged by your Freerider Distributor, he will be able to advise the extra cost of this cover.

METAL WORK: Metal components, such as the framework and bright metal parts require special attention and may deteriorate in certain conditions. Moisture and salt may corrode parts left unattended, proprietary auto cleaner polishes should be used to prevent long term damage. Failure to clean and protect these components may void your warranty.

PAINT WORK: This guarantee does not cover deterioration of paint work resulting from the lapse of time i.e. natural fading. It is the users responsibility to clean and protect the painted surfaces.

SPEED CONTROLLER: Servicing of the speed controller or battery charger must only be carried out by your local authorized **Freerider** distributor. Any attempt to open or dismantle these items render the guarantee void on that item.

BATTERIES: Batteries carry a limited 12 month guarantee from the original manufacturer which is subject to a stringent wear and tear clause. Any battery faults due to a defect in the original manufacture will normally become obvious within the first two months of use. (See batteries and battery charging section of this manual). Any gradual deterioration in the performance after this period is normal and associated with fair wear and tear, mis-use or accidental damage and as such is not covered by the manufacturers warranty. (Batteries are guaranteed as single parts, only the failed part is replaceable).

⚠ **Warning**: Do not attempt to open the battery vent plugs.

SERVICE CHECKS
In line with all mobility vehicles, your **Freerider** will benefit from regular service inspections to keep it in pristine condition. The frequency of these service inspections will depend on the amount of use your vehicle is put to. We strongly recommend you contact your local Freerider distributor to arrange for a service visit. (See Care & Maintenance Section of this manual).

Your **Freerider** product must be fully serviced at least every 12 months or more frequently if conditions and use require it.

Please contact your authorized **Freerider** distributor who will be able to advise you of his current costs affecting service visits. Please note: Non-warranty service costs are chargeable.

The warranty on your **Freerider** may not apply if routine maintenance is not carried out as defined in the 'Care and Maintenance' section in this manual.

WARRANTY SERVICE VISIT: If your **FR 168-3A3/4A** should need attention due to failure as defined under the guarantee terms, please contact the distributor from whom you purchased your machine. The **FR 168-3A3/4A** shown and described in this manual may not be exactly identical in every detail as your own **Freerider**. However, all instructions are still entirely relevant, irrespective of detail differences. If you are not sure of any details, please consult your **Freerider Authorized Distributor** before driving your Scooter.

DISCLAIMER
Freerider® disclaims all responsibility for any personal injury or property damage which may occur as a result of improper or unsafe use of its products. Mechanical or electrical defects will be dealt with on a contingency liability basis. The part or parts will be replaced or repaired but no responsibility for damage or injury can be implied to **Freerider®**

Guidelines in this manual are intended to assist you in the safe operation of your **Freerider** powered Scooter. If you should have any questions about the correct operation of your Scooter, please contact your

authorized **Freerider** dealer. **Consult your doctor and therapist if you are in doubt about your ability to operate your Freerider Scooter.**

It is the responsibility of the user to carry out daily inspections and regularly maintain and keep records of inspection and maintenance covered in this manual. The user is also responsible for the proper use of the Scooter as detailed in this manual.

SAFETY INTRODUCTION & WARNINGS

These symbols below are used in this Users Instruction manual to identify warnings and cautions. It is very important for you to read and understand them.

⚠Warning: Failure to note the warnings in this users manual may result in personal injury

⚠Caution: Failure to observe the cautions in this users manual may result in damage to your Scooter.

Your **FR 168-3A3/4A** Scooter is a powerful machine. Please read all of the instructions in this manual before operating your Scooter. Follow notes carefully to ensure safety at all times.

Always make certain your machine is fully charged and in full working order before staring your journey.

1. **Do not ride your FR 168-3A3/4A without reading this instruction manual. Also read all of the safety instructions and warnings starting on page 10 of this manual.**

2. Only drive your **FR 168-3A3/4A** if your health condition will allow you to be safe.

3. Do not exceed the maximum safe gradient outlined for your vehicle (see Technical Specification, **page 30**). Warning: Always have the anti-tipping wheels fitted when outdoors or on ramps indoors (see **page 16**).

4. Do not carry passengers or exceed the maximum carrying weight. (See Technical Specifications **page 30**).

5. Do not mount or dismount your **FR 168-3A3/4A** unless it is switched off with the freewheel device fully engaged.

6. Do not switch your **FR 168-3A3/4A** 'on' with the forward/reverse lever depressed. ⚠Warning: Do not hang bags etc. over your steering handlebars, always use the front basket. Failure to observe this warning may interfere with your controls and put you and others at risk.

7. Do not mount or dismount your **FR 168-3A3/4A** unless the speed adjustment dial is set to minimum.

8. Do not reverse your **FR 168-3A3/4A** onto uneven inclines or surfaces. Be cautious when traversing slopes.

9. Do not drive your **FR 168-3A3/4A** in a confined space unless the speed adjustment dial is set low.

10. Do not turn suddenly at full speed, especially on uneven or sloping ground.

11. Do not drive your **FR 168-3A3/4A** where you cannot safely or legally walk. Obey the Highway Code.

12. Do not drive your **FR 168-3A3/4A** unless the seat is locked into the driving position.

13. Do not drive your **FR 168-3A3/4A** with the handlebar adjustment lock, in the unlocked position.

14. Do not drive your **FR 168-3A3/4A** over deep, soft terrain (eg. soft earth, deep grass, loose gravel, snow).

15. Do not drive when under the influence of alcohol or certain drugs which may impair your safety.

16. Avoid climbing or descending kerbs, you may damage permanently your scooter.

17. Always approach small obstacles "straight on" and at low speed. Do not attempt to climb or descend kerbs. This may damage your scooter.

18. Always stop fully before changing direction (forward or reverse).

19. Always keep your feet on the vehicle when driving.

20. Always proceed carefully while riding, especially as you approach the downgrade of a ramp.

21. Always avoid uneven surfaces.

22. Always consult your physician or a therapist if in doubt about your ability to operate a Scooter.

23. **Transport - Do not sit on your FR 168-3A3/4A while it is in a moving vehicle. Always strap down your FR 168-3A3/4A then transfer to the vehicle seat.**

24. The batteries fitted to your **FR 168-3A3/4A** are maintenance free and do not require topping up with distilled water. Do not attempt to remove the safety valves situated in the top of the battery. Failure to observe this warning will invalidate your battery guarantee.

25. Do not drive your **FR 168-3A3/4A** through deep water or clean with a high pressure hose.

26. Do not drive your **FR 168-3A3/4A** through sea sand or sea water, this is very corrosive. Always wash salt splashing from the metal parts of your Scooter with hot soapy water as soon as possible. This is also important during the winter months when roads and pavements have been treated with salt water to prevent icing.

Please remember you are a motorized pedestrian and must observe all rules and regulations of other pedestrians wherever possible. Your FR 168-3A3/4A has not been designed for use on normal roads; except for crossing between pavements and where a pavement is not available.

Please have a safe journey

SAFETY INSTRUCTIONS AND WARNINGS

GENERAL

⚠**Warning:** Do not attempt to operate your new **FR 168-3A3/4A** Scooter for the first time without completely reading and understanding all of the facts in this Users Instruction Manual.
Your **FR 168-3A3/4A** Scooter is a state-of-the-art device designed to enhance and increase your mobility.

Freerider provides a range of Scooters to best suit the individual needs and circumstance of the Scooter user. Please be aware that the final selection and purchasing decision regarding the model of Scooter to be used is the responsibility of the Scooter user who is capable of making such a decision with assistance from his/her healthcare professional (i.e. medical doctor, physical therapist etc.) The contents of this Users Instruction Manual are based on the expectation that the mobility device expert has properly fitted the Scooter to the user and has assisted the prescribing healthcare professional and/or the authorized **Freerider** Distributor in the instruction process for the safe use of the scooter.

There are certain situations, including some medical conditions, where the Scooter user will need to practice operating the **FR 168-3A3/4A** in the presence of a trained attendant. A trained attendant can be defined as a family member or care professional specially trained in assisting a Scooter user in various daily living activities. When you begin to use your **FR 168-3A3/4A** Scooter, you will probably encounter situations in which you will need some practice. Simply take your time and you will soon become confident and in control as you maneuver through doorways, on and off elevators, up and down ramps and over moderate terrain. Below are some tips, precautions and other safety measures that will help you to become accustomed to the safe operation of your FR 168-3A3/4A Scooter. Your FR 168-3A3/4A is fitted with a number of 'Safety Warning Instruction' labels (see page 14). These labels communicate important warnings or instructions. Please familiarize yourself with their location.

SAFETY CHECK

Get to know the feel of your **FR 168-3A3/4A** Scooter and it's capabilities. **Freerider** recommends that you perform a safety check before each use to make certain your Scooter operates smoothly and safely. For details on how to perform these necessary inspections, see the Care and Maintenance section of this manual. Perform the following inspection prior to using your **FR 168-3A3/4A** Scooter.

- Check all battery connections, making certain they are tight and not corroded.
- Check front basket is fitted correctly.
- Check batteries have been fully charged
- Check operation of brakes

⚠**Warning**: Do not carry passengers on your **FR 168-3A3/4**A. Your Scooter is designed for a single occupant which complies with legal requirements for pavement vehicles. Carrying passengers on your Scooter may result in personal injury and/or property damage.

WEIGHT LIMIT

Your **FR 168-3A3/4A** Scooter is rated for a maximum user weight limit of 114kg (252lbs).

⚠**Warning**: Exceeding the weight limit will void your warranty and may result in personal injury and damage to your scooter. **Freerider** will not be held responsible for injuries and/or property damage resulting from failure to observe these weight limitations. Please also remember when carrying heavy objects that this will increase your weight and may make your Scooter unstable.

CORNERING

Excessively high cornering speeds can create the possibility of tipping. Factors which affect the possibility of tipping include, but are not limited to, cornering speed, steering angle (how sharply you are turning), uneven surfaces, included surfaces (such as heavily cambered pavements), riding from an area of low traction to an area of high traction (such as passing from grass areas to a paved area - especially at high speed while turning), and abrupt directional changes. Do not corner at high speed! If you feel that you may tip over in a corner, reduce your speed and steering angle to prevent your Scooter from tipping.

⚠**Warning**: When cornering sharply, reduce your

speed. When using your **FR 168-3A3/4A** at higher speeds, anticipate changes in the road surface. This will greatly reduce the possibility of a tip or fall. To avoid personal injury or property damage, always exercise common sense when cornering.

BRAKING

Your **FR 168-3A3/4A** Scooter is equipped with two powerful brake systems:

1. **Regenerative:** Uses the electricity generated in your **FR 168-3A3/4A** drive motor to rapidly slow your Scooter when the speed direction lever is returned to the centre (neutral drive) stop position; and
2. **Electric/Mechanical Disc Park Brake:** Located on the end of your drive motor it activates mechanically after the regenerative brake slows your Scooter to a near stop, or when power is removed from the drive system for any reason, as in the case of switching your machine off!

Brake engagement is far more abrupt at higher speeds. It is important that you anticipate when the brakes will engage and that you are braced for the resulting deceleration.

⚠Warning: Your Scooter can decelerate very quickly. Do not decelerate or turn abruptly when traveling at high speed unless absolutely necessary. If it is necessary to decelerate or turn abruptly when driving at high speed, brace yourself by gripping the steering handlebar tightly and positioning your feet firmly on the floorboard. Users who cannot grip the handlebar tightly and/or place their feet firmly against the footboard should avoid deceleration from or turning abruptly at high speed, and therefore should avoid traveling at high speed. Failure to observe this warning could result in serious personal injury and property damage. Always brace yourself firmly when decelerating your **FR 168-3A3/4A** Scooter.
Never drive down slopes at full speed, always adjust your speed to the driving condition and allow for gradual descents on inclines.

OUTDOOR DRIVING SURFACES

Your **FR 168-3A3/4A** Scooter is designed to provide optimum stability under normal driving conditions i.e. dry, level surfaces composed of concrete or asphalt. However Freerider recognizes that there will be times when you will encounter other surfaces such as packed soil, grass and gravel. These surfaces may not be sound and fail to give good traction, caution should be considered before driving on this type of surface to prevent stability problems resulting in injury or damage to your Scooter.

- Reduce your Scooters speed to the 'Lo' switch position when driving on uneven terrain or soft surfaces.
- Avoid long and unsafe grass that can become tangled in the running gear or may hide debris and holes.
- Avoid snow, this can quickly build up around your wheels.
- Avoid loosely packed sand and gravel
- If you feel unsure about a driving surface, please anticipate and avoid that surface.

STREET AND ROADWAY DRIVING

⚠Warning: Your **FR 168-3A3/4A** Scooter has been designed for operation on public streets and roads. It is also designed for operation on pedestrian pavements and traffic free shopping areas.

Your **FR 168-3A3/4A** Scooter must be driven with due care and compliance with the Road Traffic Acts and conditions of the Highway Code. Always obey all local pedestrian traffic rules. Wait until your path is clear of traffic, and then proceed with extreme caution. Note: Always wear light or illuminating clothing when driving your Scooter. Be aware that it may be difficult for traffic to see you when you are seated on your Scooter. Only drive your Scooter on the road when a public pavement is available (i.e. in the countryside) or when crossing the roadway from one pavement to another.

INSURANCE

Although at this moment in time it is not a legal requirement for accident insurance cover (third party), it is a sensible precaution. Your Freerider Authorized Agent will be able to give you details of specialist insurance companies or your own insurance company will be able to advise you.

WEATHER PRECAUTIONS

⚠ Warning: **Freerider** recommends that you do not operate your **FR 168-3A3/4A** Scooter in icy or slippery conditions or on salted surfaces i.e. Roads and Pavements etc. Such use may result in accident, personal injury or adversely affect the performance and safety of your Scooter.

⚠Warning: **Freerider** recommends that you do not expose your Scooter to any type of heavy moisture at any time i.e. rain, snow or power washer. Such exposure can damage your Scooter. Never drive through deep water or expose your Scooter to sea water. Note: salt is very corrosive to metal and electronic components. Following use in winter or exposure to sea sand and water, your Scooter should be washed with a mild soap and water to remove all ingress of salts. Do not use a power hose. Do not operate your Scooter if it has been exposed to moisture until it has been thoroughly dried out.

FREEWHEEL YOUR FR 168-3A3/4A

Your Scooter is equipped with a manual freewheel lever for convenience when you need to push it. See the Freewheeling your **FR 168-3A3/4A** section on page 10 of this manual.

⚠Warning: Do not use your Scooter in the freewheel mode without an attendant present. Personal injury may result.

⚠Warning: Do not attempt to personally place your Scooter in freewheel mode while seated on it. Personal injury may result. Ask an attendant for assistance if necessary.

⚠Warning: Do not place your Scooter in freewheel mode while on an incline. The Scooter could roll uncontrollably on its own, causing personal injury.

MOTOR VEHICLE TRANSPORTATION

Currently there are no standards approved for "tie down" systems in a moving vehicle of any type to transport a person while seated in a Scooter.
Although your Scooter may be equipped with a positioning belt *, this is not designed to provide proper restraint during motor vehicle movements.
Anyone traveling in a motor vehicle should be properly secured in the motor vehicle seat with a safety belt fastened securely.

⚠Warning: Do not sit on your Scooter while it is in a moving vehicle. Personal injury may result.

⚠ Warning: Always make certain that your **FR 168-3A3/4A** is properly secured when being transported. Failure to comply may result in personal injury and/or damage to your Scooter.

* POSITIONING SAFETY BELT (NOT SUPPLIED)

Your authorized **Freerider** Agent, therapist and other healthcare professionals are responsible for determining your requirement for a positioning belt in order to operate your Scooter safely.

⚠Warning: If you require a positioning belt to safely operate your Scooter, make certain it is adjusted and fastened securely. Serious personal injury may result if you fall from your Scooter.

ACCESSING YOUR SCOOTER

Getting on and off your Scooter requires a good sense of balance. Please observe the following tips when getting on or off your Scooter:

- Make certain your **FR 168-3A3/4A** Scooter is switched off at the power switch, and the power key is removed.
- Ensure your **FR 168-3A3/4A** is not in the freewheel mode (see page 10 - Freewheeling your **FR 168-3A3/4A**)
- Make certain the seat and handlebars are locked firmly into position.
- The seat armrests can be lifted up to make access easier. Make certain you do not attempt to drive with the armrests raised.

⚠Warning: Position yourself as far back into the Scooter seat as possible to prevent tipping and causing injury.

⚠Warning: Avoid using the armrests for weight bearing purposes, such use may cause the Scooter to tip and cause personal injury and/or damage to the Scooter.

⚠Warning: Avoid putting weight onto the steering handlebars, such use may cause the Scooter to tip and cause personal injury and/or damage to the Scooter.

⚠Warning: Avoid putting all of your weight onto the footboard, such use may cause the Scooter to tip and cause personal injury.

MODIFICATIONS

Freerider has designed your **FR 168-3A3/4A** Scooter to provide maximum mobility. A range of accessories are available from Authorized **Freerider** Agents, to further customize your Scooter needs. However, under no circumstances should you modify, add, remove or disable any feature, part or function of your machine.

⚠Warning: Failure to observe this warning may result in personal injury and/or damage to your Scooter.

INCLINES

More and more modern buildings are designed with disability access in mind. Ramps have specified percentage of inclination, designed for easy and safe access. Some ramps may have turning switchbacks (180 degree turns) that require you to have good cornering skills on your Scooter.

- Proceed with extreme caution as you approach the downgrade of a ramp or other incline, sit right back in Your seat, brace your arms on the handlebars and your feet on the floorboard
- Take a wide arc with your **FR 168-3A3/4A's** front wheels around tight corners, your rear wheels will follow preventing you from cutting the corner short and bumping or getting hung up on raised kerbs.
- When descending an incline keep your speed adjustment set to the slowest speed setting to ensure a safely controlled descent and driving in a forward direction only. If your Scooter descent is quicker than you anticipated allow the Scooter to completely stop, then progress at a slower speed setting.

⚠Warning: Never drive down an incline at full speed.

- When climbing an incline, try to keep your Scooter moving, if you must stop, start up again slowly and then accelerate smoothly with caution. Avoid sudden stop starts, lean forward towards your handlebars to increase stability and prevent rearward tipping.

⚠Warning: When climbing an incline, do not zig-

zag or drive at an angle up the face of the incline. Drive your Scooter smoothly up the incline without stopping, this greatly reduces the possibility of a tip or fall.

⚠Warning: You should not travel over a potentially hazardous incline i.e. areas covered with ice or snow, cut grass or wet leaves or any unstable surface.

⚠Warning: Do not overload your Scooter, at the rear when climbing an incline. Always lean forward to provide the best stability and prevent rearward tipping.

⚠Warning: Any attempt to climb or descend an incline steeper than shown in the Scooter Specification at the rear of this manual may put your Scooter in an unstable position and cause it to tip, resulting in personal injury.

Never remove the anti-tip wheels of your Scooter, they are an important part of your Scooters design. See also Control on an Incline page 16.

8 degree maximum incline

6 degree maximum incline

STAIRS AND ESCALATORS

⚠Warning: Scooters are not designed to travel up or down stairs or escalators. Always use an elevator. Failure to observe this warning may result in injury to yourself and others and damage your Scooter.

PREVENTING UNINTENDED MOVEMENT

⚠Warning: If you anticipate being seated in a stationary position for an extended period of time turn off the power key switch, this will prevent unexpected motion due to inadvertent movement of the direction control lever. Failure to observe this warning may result in personal injury.

DISPOSAL OF ELECTRO-MOBILE SCOOTER

In time when your Scooter becomes unusable it must be disposed of in accordance with the laws implemented at that time. For further information regarding the recycling arrangements for this type of vehicle and its batteries, contact your local authority or government department, details of this can be found in your telephone directory.

SAFETY WARMINGS & INSTRUCTION LABLES

The following labels are positioned on your **FR 168-3A4/4A**, they communicate important warnings or instructions regarding the safe operation of you scooter - Please familiarise yourself with their location.

Control console label

Located on front of handlebar cover

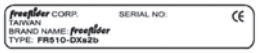
Located at the left hand rear cover of Scooter

WARNING
EMERGENCY FREEWHEEL DEVICE
NEVER SIT ON YOUR SCOOTER WITH THE FREEWHEEL DEVICE IN THE DISENGAGED POSITION. ALWAYS RE-ENGAGE THE EMERGENCT FREEWHEEL DEVICE AFTER USE. FAILURE TO COMPLY WITH THIS WARNING MAY RESULT IN INJURY.

Located on the top of the scooter's rear cover (under seat)

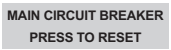
Located on front wheel cross member

Located at leftside rear of battery pack near charging socket



Data serial plate located on front Wheel cross member

Wiring diagram for batteries located under rear cover



Located on the top righside of the battery pack (under seat)

ADVISORY SAFETY NOTICE

⚠Warning: Radio wave sources may affect Scooter control. Your powered Scooter is designed to operate in appropriate environments, however radio wave sources such as radio or TV broadcasting stations, amateur (Ham) radio transmitters, two-way radios and cellular portable telephones can affect powered motorised Scooters.

The following warnings listed below should reduce the chance of unintended brake release or uncontrolled powered Scooter movement.

1. Do not turn on hand held personal communication devices such as citizen ban (CB) radios and cellular phones, while your **Freerider** Scooter is turned on.
2. Be aware of nearby transmitters such as radio or TV stations, and try to avoid coming into close contact with them.
3. If unintended movement or brake release should occur, turn your **Freerider** OFF as quickly as it is safe to do so.
4. Be aware that adding accessories or components or modifying your **Freerider** Scooter may make it more susceptible to interference from radio wave sources.

Note: There is no easy way to evaluate their effect on the overall immunity of your powered Scooter.

5. Report all incidents of unintended movement or brake release to your Freerider supplier, noting if there is a radio wave source nearby. He will then be able to diagnose your Scooter to eliminate any possible Scooter component failure. Please note a charge may be made for this service.

Your Scooter has been tested to the following standards with reference to **EN12184**. Emissions **EN50022(B)**, Immunity **IEC1000-4-3, E.S.D. IEC801-2**

Note: All figures, speeds, measurements and capacities shown in this manual are approximate and do not constitute specifications. Our policy is one of continual improvement. We reserve the right to alter, without notice, any weights, measurements or other technical data shown in this manual. If you require specific accurate data, please contact your **Freerider** authorized dealer.

Enjoy your **FR 168-3A3/4A**

GETTING TO KNOW YOUR FR3A3/4A

PRODUCTION DESCRIPTION

Your **FR 168-3A3/4A** supplied has fitted as standard the following features:

- Rear-wheel drive via sealed drive axle
- 12 A/H sealed non-maintenance lead-acid batteries
- Manual charging system.
- Off-Board charging facility.
- Seat with folding backrest, height adjustment and adjustable width arm-rest.
- A multi-positional handlebar for greater comfort.
- A simple 'wig-wag' type control lever situated on the handlebar, controls speed, braking and direction.
- Captain-style seat with folding backrest, adjustable width arm-rests and safety belt
- Steering is controlled by a handlebar attached to a fork system containing the single front wheel for **FR 168-3A3**
- Steering is controlled by a handlebar attached to a linkage system containing the single front wheels for FR 168-4A
- Independent braking system.
- 'State-of-the-art' micro-controller electronics ensures a smooth, comfortable and safe drive on all surfaces and gradients
- Tow piece steel chassis for ease of transporting.
- You Scooter can be dismantled into separate components without the use of tools for ease of transporting.

However, your Scooter is not designed to transport the user in a moving vehicle; for advice ontransporting consult your selling agent.

- Simple to remove battery pack.
- Cable free when taken apart.

The product should be serviced as recommended by an approved Freerider distributor in order to ensure safe, reliable operation. For details and list of options available for users, refer to the accessories section of this manual.

PURPOSE OF YOUR 3A3/4A SCOOTER

Your **FR 168-3A3/4A** Scooter is suitable for persons who require independent mobility combined with comfort, maneuverability, reliability and a product that needs a minimal amount of maintenance.

The intended user should possess some degree of ability with the use of both arms and hands, reasonable balance and good eyesight, and a degree of spatial awareness. The user should have received training in the use of the product, preferably in their normal environment. The maximum user weight for the **FR 168-3A3/4A** can be found in the rear of this manual, under 'Technical Specification'.

Your **FR 168-3A3/4A** is suitable for use indoors at low speeds in shopping malls or outdoors on dry, reasonably

smooth level road surfaces. It climbs slopes safely up to 8° and over obstacles up to 2.5cm (1"). Your Scooter should not be used in torrential rain or snow, on loose slippery surfaces and slopes or on wet grass etc., which could become a danger to the rider, and the scooter.

Passengers must not be carried. Excess baggage outside of the seating area can affect stability.

Your FR 168-3A3/4A is a 'Class 2' (B)* vehicle and designed for pavement use only. The FR 168-3A3/4A must only be used on the road with caution if a pavement is not available. It is designed for a single occupant who experience difficulty or discomfort when walking for prolonged periods, but has the use of both legs and the physical, visual and cognitive ability to operate the Scooter safely.

Do not drive your FR 168-3A3/4A if you are under the influence of alcohol, drugs or medication that may affect your ability. If in doubt consult your doctor.

As a pavement user you should familiarize yourself with the current legislation contained within the Highway Code.

* Definition

Electrically powered scooters are classified in the following categories:

Class 2 as defined in "The Use of Invalid Carriages on the Highway Regulations 1988". A Scooter type invalid carriage designed for the use on the footway, with maximum speed up to 4mph.

Class 'B' as defined in The European Standard EN12184: 1999. A scooter sufficiently compact and maneuverable for some indoor environments and capable of traveling over longer distances and negotiating outdoor obstacles.

GETTING TO KNOW YOUR FR 168-3A3/4A

Your **FR 168-3A3/4A** Scooter is delivered in a strong tri-wall carton. When unpacking the carton, first remove all of the sharp metal staples which are located in the top. Carefully dispose of the staples to avoid injury. Remove all packing materials, avoid using sharp instruments as this may damage the Scooter. Carefully remove the Scooter from the carton; to minimize damage to the Scooter and the operator, two people should be used for this operation.

Safely dispose of all packaging materials, your local waste disposal authority can advise you on this procedure.

Your **FR 168-3A3/4A** Scooter is delivered fully assembled, fitting the two batteries, driving mirror and the seat assembly together with minor adjustments are detailed on the following pages under 'Operating your **FR 168-3A3/4A** . A full technical specification for your **FR 168-3A3/4A** can be found at the rear of this manual.

A great deal of thought and consultation has gone into the design of your state-of-the-art, life-changing Scooter. Your **FR 168-3A3/4A** Scooter will help to increase your mobility and therefore give you more time and energy to enjoy life.

The **FR 168-3A3/4A** is a medium size three wheeled/ four wheeled vehicle which will allow you to negotiate obstacles found in confined shopping areas. This is just one of the features you will find on your FR 168-3A3/4A scooter. Others are:

COMFORT - The contoured seat helps cushion you from the vibrations of a journey, giving you maximum comfort. A fully proportional speed-controller with a speed restriction facility allows you a smooth, safe jerk-free ride. Automatic braking system gives system you that added peace of mind.

VERSATILITY - The removable fold down seat, together with a facility to fully lower the steering handlebar, allows your **FR 168-3A3/4A** to be easily transported in an average saloon or hatchback car for those days when you travel further afield.

SERVICE - Your **Freerider FR 168-3A3/4A** has been designed to be service friendly. Sealed batteries which are virtually maintenance-free will give your **FR 168-3A3/4A** the power it requires. Should you need to take your batteries on an aircraft, then you can have peace of mind because the batteries are totally spill-free. (Please consult your carrier for details).

SAFETY - The advanced speed controller has been designed with extensive self-checking circuits to give you the maximum 'state-of-the-art' safety technology. Fully automatic braking system gives the driver confidence in any environment. The on/off key can be removed for added security and safety, this disables the electronic drive circuitry, and your **FR 168-3A3/4A** cannot therefore be driven away by any other person.

CAUTION - Do not switch 'off' the on/off power key when you are moving; this will automatically apply the motor parking brake suddenly and could place you in a dangerous situation. Your **FR 168-3A3/4A** is fitted with anti-tipping wheels. Do not remove these anti-tipping wheels, they are an important part of the **FR 168-3A3/4A** provided specifically for your safety. They help protect against backwards tipping on excessively sharp inclines

CHARGING - Your **FR 168-3A3/4A** is fitted with a battery level indicator. Charging is straight forward. Your charger is fully automatic and will reduce to a top-up charge mode when the re-charge cycle is complete.

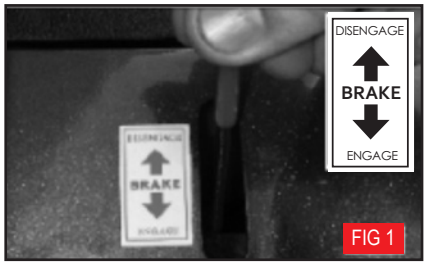
(See Batteries and Battery Charging section of this manual).

FREEWHEELING YOUR SCOOTER

If for reasons of convenience, you require to push your **FR 168-3A3/4A** Scooter for a short distance, the drive system can be put into 'freewheel mode'. This will allow your FR 168-3A3/4A to roll freely.

FR 168-3A3/4A FREEWHEEL PROCEDURE

The freewheel device is a red lever located at the top, rear right hand side of your Scooter (**Fig 1**). Access is available from under your seat. To freewheel your **FR 168-3A3/4A** first switch off the power switch located on the **FR 168-3A3/4A's** control console (Fig 7). Pull forward the red lever (**Fig 1**) until a distinct click is felt (disengage). You can now push your FR 168-3A3/4A with ease. Please note, in this mode with the power switch in the off position, the braking safety system is automatically activated when the Scooter is pushed quicker than walking speed.



By switching on the console power switch at this stage you will introduce some heavy motor braking, you will note the green status light on your console is now flashing five times. This indicates that your **FR 168-3A3/4A** is in a freewheel mode and you cannot drive your Scooter. Note, the quicker you push your Scooter the heavier the brake will be applied.

To re-engage the drive system, simply push backwards on the red handled lever until a distinct click is felt. Switch the power switch on your console off and then on, the green status light will be fully illuminated and you will be able to drive your **FR 168-3A3/4A** once again.

⚠Warning: **Do not sit on your FR 168-3A3/4A Scooter with the freewheel device in the disengage position. Your FR 168-3A3/4A Scooter has limited braking and will not drive in this mode, the green status light on your console will flash five times.**

⚠Warning: If your **FR 168-3A3/4A** Scooter is in the freewheel mode when you turn on your power key switch and depress your speed forward - reverse lever, you will not be able to move under motor power. Dismount and re-engage the drive system by pulling backwards on the red handled lever (engage). Remount your Scooter, switch the power switch off and on again until the green status light fully illuminated. Your FR 168-3A3/4A will now drive under motor power again.

⚠Warning: Always check that the freewheel device is in the drive position before attempting to drive your Scooter after it has been left unattended for a period of time. **Failure to observe this warning may result in an accident.**
General note: If you are able to push your Freerider **FR 168-3A3/4A** the drive system is disconnected. Do not attempt to drive your Scooter. Please check once again the above mentioned procedure for re-engaging the drive.

⚠Warning: If your batteries are disconnected from your Scooter there will be no brake function in the freewheel mode. Do not leave your Scooter unattended in this situation as it could roll away causing damage to other parties or property. Always re-engage the drive system when left unattended.

⚠Warning: Yellow warning notice label situated on your rear cover located under your seat.

⚠WARNING
EMERGENCY FREEWHEEL DEVICE
NEVER SIT ON YOUR SCOOTER WITH THE FREEWHEEL DEVICE IN THE DISENGAGED POSITION. ALWAYS RE-ENGAGE THE EMERGENCT FREEWHEEL DEVICE AFTER USE. FAILURE TO COMPLY WITH THIS WARNING MAY RESULT IN INJURY.

Please take extreme care

LEARNING TO GET ABOUT

⚠Warning: If you are not an accomplished outdoors mobility product driver, we strongly recommend that you first practice in an open area, free from traffic and preferably with an attendant who can assist you.

MOUNTING

For your first drive make certain that you and your new **FR 168-3A3/4A** Scooter are on a level surface. Put the power on/off key into its slot, but leave it turned off. Stand behind the **FR 168-3A3/4A's** seat, and reach down to the 'Seat Lock Lever'. It will be on the left side directly under the armrest. Grasp the 'black' knob on the lever and pull up, releasing the Seat (Fig 10). It will now turn easily to meet you. If need be, you can lock the seat into position to make it steady before you sit down. You can also lift up the armrest to assist this procedure. Seat yourself and swing the seat to face the handlebars. Make sure you are straight, then release the spring assisted lever, making certain that it locks your seat firmly in position.

Next, turn the 'Speed Adjustment Dial' to minimum (min), and turn the 'on/off" key to 'on' (Fig 8, page 9).

(The battery state indicator will illuminate). Gently press the right thumb control lever (**Fig 1 page 11**) to start you in a forward direction. To stop simply release the lever, the brakes will be automatically applied.

⚠Warning: Please take care not to have your hand on the forward/reverse control lever when you switch 'on' your FR 168-3A3/4A; this will result in your machine going into a fault mode. Switch 'off ' then 'on' again to clear the fault.

⚠Warning: If your **FR 168-3A3/4A** has been adapted for left hand, forward operation then this procedure will be reversed: i.e. operating with the left control lever for forward direction and the right control lever for reverse direction.

⚠Warning: If your **FR 168-3A3/4A** has been converted with a "Delta" type control system, please refer to the separate instructions provided with this accessory (see also page 37 of this manual)

DISMOUNTING

that a back wheel will go off the pavement, causing a stability problem. Avoid this at all times by steering an exaggerated wide arc around the obstacle.

LEARNING T

If you must steer in a tight spot, such as entering a doorway or when turning around, stop, turn the handlebars to where you want to go, then apply the power gently. This will make the **FR 168-3A3/4A** turn sharply. It will still go gently, and with complete stability. Practice in an open area, until you are Proficient. Reversing requires attention. Be sure your 'Speed Adjustment Dial' is turned to minimum before you reverse (**Fig 8, page9**).Push the left thumb reverse control lever (**Fig 9, page 10**).Remember, when you reverse you have to steer in the opposite direction to the way you want to go. Practice is required here, again use that open space. Please note as a safety requirement reverse speed is half of forward speed. **Note:** If your **FR 168-3A3/4A** is set up for left forward driving the afore mentioned description is reversed.

REMEMBER: If it is a tight turn, turn your steering column before applying power. Steer wide of all corners and obstacles, please move slowly and with care.

⚠Warning: **Do not turn your 'on-off' power key switch to the 'off' position when your FR 168-3A3/4A is in motion, failure to observe this warning may irreparably damage the main electronic speed control unit or drive transmission. Always first slow your FR 168-3A3/4A down to a stationery position before you switch your Scooter off.**

CONTROL THROUGH TIGHT SPOTS

When you start using your **FR 168-3A3/4A** you will meet some obstacles that will require some practice to drive through smoothly.

Here are some common problems, with tips that will help you master them quickly. You will soon be in control through doors and up and down ramps with surprising ease by following these tips.

CONTROL THROUGH DOORS

Approach an unfamiliar door slowly, sizing it up. Does it have a knob or push bar? Does it open toward you or away ? Think in terms of using the power of the **FR 168-3A3/4A** to do the work for you! You need not strain.
Hold the doorknob or bar in one hand and apply power with the other hand. (Remember that you can drive forwards by using your left thumb to move the wig-wag lever towards you.) If the door is self closing, you can go through, allowing the door to close behind you, if you go quickly enough. If not, just stop when you're clear of the door and push it closed.

If the door opens toward you, hold the knob or bar with one hand and gently let the reverse power do the work. When the door is open wide enough, go ahead quickly, leaving the hand on the door to keep it free of the Scooter and letting go as you pass the doorjamb. It is an easy technique. Practice makes perfect. Remember - your **FR 168-3A3/4A** can do the work without wearing you out!

Going through doors, with the back wheels: If you're not moving, your rear wheel is probably caught. Reverse and try again. Take your time - relax - enjoy yourself.

CONTROL ON AN INCLINE

More and more buildings have ramps for wheelchair access. Some have a change of direction in the middle, and good cornering is required.

Make a wide maneuver with your front wheels around tight corners, so that your back wheels follow a wide arc to stay clear of the corner.

If you stop while facing uphill, the automatic parking brake will hold you safe. To start again, slowly operate

the forward direction lever, the parking brake will release and you will start to move.

When you approach an incline, it is best practice to lean forward, (**Fig 11, 12**). This moves the centre of gravity of your **FR 168-3A3/4A** towards the front of the Scooter for improved stability.

When going down an incline, keep your speed s low. This will keep you in a safely controlled descent. It is best to lean backwards, this moves the centre of gravity of your **FR 168-3A3/4A** towards the rear of the scooter for improved stability. If you wish to stop completely, release the control lever, and you will come to a gentle stop, avoid sudden stop starts.

⚠Warning: Do not exceed the incline guidelines or any other specifications presented in this manual.

CONTROL OVER STATIONARY OBJECTS

Stationary obstacles (steps, kerbs, etc) must be avoided where possible. Your **FR 168-3A3/4A** has a small wheels and a ground clearance of 4.0cm. Proceed with extreme caution when driving near raised surfaces, unprotected ledges and/or dropoffs such as kerbs, stairs, etc.

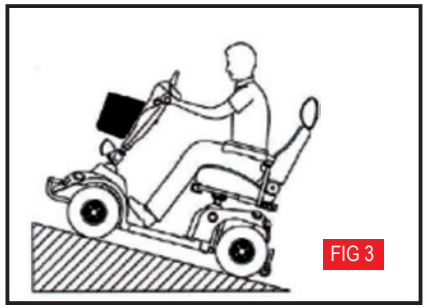


Fig11: Normal driving position

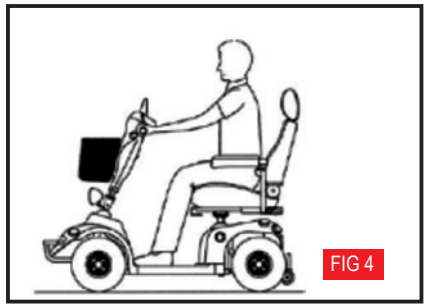


Fig12: Increased stability driving position

Most new pavements have wheelchair access ramps at intersections, use these at all times. Plan your route where possible to avoid poor and uneven surfaces. Do not attempt to ride up or down kerbs as you may ground your Scooter and damage its construction.

CONTROL OVER GRASS & GRAVEL ETC.

Care must be taken when attempting to drive over soft surfaces such as those found in parks etc. The surface may look level, but this can be deceiving and hidden dangers may make your **FR 168-3A3/4A** become unstable or grounded. Avoid unkept grass, loose deep gravel or sand, do not exceed the capabilities of your Scooter.

Always have an attendant to assist you in circumstances where you are not certain of the terrain. Always anticipate and think safety.

⚠Caution: Because of the power of your Freerider **FR 168-3A3/4A**, you will be able to climb inclines. But the maximum safe gradient limit is 8 degrees. The reason for this is to ensure good stability.

Always have the anti-tipping wheels fitted to your machine (**Fig. 5**). When climbing angles or obstacles. Always avoid turning on slopes or climbing kerbs.

Always make certain that your **FR 168-3A3/4A** is in full working order and your batteries are fully charged before attempting to drive.

Never attempt to drive beyond the design capability of your **Freerider FR 168-3A3/4A**. Observe weather conditions. Tires can slip on wet or icy surfaces.

DO NOT DRIVE THROUGH DEEP WATER OR LEAVE YOUR FREERIDER EXPOSED TO HEAVY RAIN.
i.e. During or after a thunderstorm.

Do not attempt to turn when negotiating an incline, only turn when all wheels are fully on or off the incline; failure to observe this warning could result in the machine becoming unstable and toppling over.

Always lean forward when ascending an incline and backwards when descending. This will enable you to

maintain good stability and will eliminate any chance of a rear or forward upset.

PLEASE NOTE: The rear stability of your Scooter is dependent on a number of factors which you should consider before attempting to climb an incline or other obstacle: (a) your height; (b) the height of your seat; (c) your weight and (d) the angle of the incline you are attempting to climb. All of these factors can affect the rear stability of your Freerider FR 168-3A3/4A Scooter. If you are unsure of your capability to climb an obstacle, then try another route - always think 'safety first'.

Please take care and be safe

BATTERIES & BATTERY CHARGING

BATTERY INSTALLATION

Your **FR 168-3A3/4A** Scooter is equipped a battery pack with two maintenance free 12 volt 18Amp/hr batteries. The batteries are linked together by wiring cables to supply the electronic system with 24 volts of power.

⚠Warning: It is imperative that the two batteries are connected correctly to prevent a short circuit between the two batteries.

1. Position battery pack onto the Scooter frame as the diagram below.
2. Switch on your Scooter, the battery meter will now move to show the state of charge in the batteries and your Scooter is ready to drive.

BATTERY CONNECTIONS

⚠Warning: Batteries are heavy (24 kgs), always handle with two hands. Do not allow metal tools to touch both battery terminals together, this will cause an electrical short and may damage the battery and injure you.
Failure to observe this warming may cause an explosion, short circuit, fire or injury to your person.

BATTERY CHARGING

Your **FR 168-3A3/4A** has a lot of power for a Scooter. Keeping it working to its maximum potential means that its two batteries must be maintained with full power. Nightly recharging, after use, will help you to give them a longer life and will ensure your **FR 168-3A3/4A** is always ready to go when you are.

BATTERIES

Your **FR 168-3A3/4A** is fitted with two sealed maintenance-free batteries, especially designed for motive traction use. This means that you do not have to worry about topping up the cells. Warning: Do not attempt to remove the safety valves situated in the top of the battery. Failure to observe this warning will invalidate your battery guarantee. Your **FR 168-3A3/4A** batteries are virtually maintenance-free because the electrolyte is immobilized in a special form and therefore will not leak out, even if the battery is accidentally overturned. Because your Freerider batteries are sealed they are more likely to be accepted for carriage on aircraft. Please consult your carrier prior to departure, as they will need advance warning that you wish them to carry batteries. Please note: Each carrier reserves the right not to carry what may be termed '**HAZARDOUS CARGO**'. **Freerider** cannot be held responsible for their final decision.

BATTERY CHARGER

The battery charger supplied (**Fig 7**), is special to your **FR 168-3A3/4A** and it may not be suitable for any other powered mobility product. Only use the charger supplied with your **FR 168-3A3/4A** other makes of charger may permanently damage your batteries and would invalidate the Guarantee.

CHARGING THE BATTERIES

Your **FR 168-3A3/4A** batteries will need to be recharged when the battery condition indicator gauge located on the handle bar console (Fig 7 page 8), is reading in the far left of the green scale or into the red sector. 'Green' indicates a full charge (to the far right), down to half charge (to the far left of the scale). 'Red' indicates that less than half charge is remaining in the batteries.
Note: The batteries will have a longer life if you do not use up all of the batterie's power and recharge as soon as the battery condition gauge enters the red sector of the scale, rather than letting it go right over to the far left of the red scale. To charge your batteries follow these simple steps:

1. Switch off your **FR 168-3A3/4A** and remove the key.
2. Your Charger has two leads exiting from it. One lead has a 3-pin mains plug fitted to it. The second lead has a 3-pin round charging connector on its end. Connect the round 3-pin charging connector to the 3-pin charge socket, which is located in the center rear body cover and marked "CHARGE" (**Fig 8**).

3. Plug the 3-pin main plug from the Charger into a convenient wall socket and switch the wall socket on. **Note:**If you need to use an extension lead for your main supply, make certain that it is safe and suitable for the charge current.

NOTE: Your **FR 168-3A3/4A** will not drive if the charger is connected.

CHARGING STATUS INDICATION SYMBOL LIGHT COLOR STATE OF CHARGER

Orange Mains Charging.
Green Mains Charge Complete
GENERAL
Depending on the depth of discharge, the minimum time taken to re-charge serviceable batteries fully will vary from 4 hours up to 6 hours. Please note that recharge time will vary between the minimum and maximum times indicated due to the varying states of battery use.

Please be patient.

Trouble Shooting

(1) If GREEN indicator is off
- Check AC input. If it works normally, the battery charger may be defective

(2) If GREEN is working normally but Charging Indicator (ORANGE) is off
- The polarity connection may be reversed.
- The output connection may be short or open.
- If the Charging Indicator (ORANGE) is still off, the battery charger may be defective.

(3) If the Charging Indicator (ORANGE) does not turn Green (Fully Charged)
- The battery is not charged normally, please stop charging and have the battery repaired.

(4) If the Charging Indicator (ORANGE) turn Green (Fully Charged) immediately
- The battery may be in well-charged condition.
- If the battery is not fully charged, it may be defective. Please have it repaired.

ADVISORY NOTES

1. Disconnect from the mains supply before removing the 3-pin charge plug from the charge socket.
2. **The FR 168-3A3/4A** Charger is for indoor use only: DO NOT EXPOSE TO RAIN OR MOISTURE.
3. Do not smoke or use naked flame near your batteries while they are being charged.
4. Do not use an extension lead unless absolutely necessary. Use of an improper extension lead could result in a risk of fire and electric shock.
5. Do not use the Charger if it has received a sharp blow, been dropped or otherwise mis-used in anyway. Return Charger to your Authorised Freerider Agent.
6. Do not dismantle the Charger, poke or drop objects through the slots in the Charger case.
7. Do not switch off, unplug or interrupt the re-charge cycle until the charging cycle has completed. Failure to observe this instruction can result in overcharging of the batteries.
8. There is a drive inhibit function on your Scooter. The Scooter cannot be driven when the Charger is plugged into your **FR 168-3A3/4A**.
9. Slight heat on the exterior while charging. Avoid exposure to heat.

YOUR GUIDE TO SAFE AND LASTING BATTERIES

1. For longest life, your batteries should always be re-charged after use. Preferably over night.
2. If your **FR 168-3A3/4A** is not used for a period of time, a refreshing charge should be given every month. Never leave your batteries in a discharged condition. This is particularly important with sealed batteries as fitted to your **FR 168-3A3/4A**. If your batteries fall below a total terminal voltage of 12 volts, the charger supplied with your Scooter will not operate. Please consult your Freerider dealer.
3. If your **FR 168-3A3/4A** has been stored away for

some time, re-charge your batteries before re-using it.
4. Every month, check the connections on the batteries, making sure they are tight and clean.
5. Batteries carry a limited guarantee from the original manufacturer which is subject to a stringent wear and tear clause. Any battery faults due to a defect in the original manufacture will normally become obvious within the first two months. Any gradual deterioration in performance after this period is normally associated with fair wear and tear, mis-use or accidental damage and, as such, is not covered by the manufacturer's warranty. (This does not affect your statutory rights). **Note:** If one battery becomes faulty during the guarantee period only that battery from the pair will be replaced.

CHARGING YOUR BATTERIES AWAY FROM YOU SCOOTER

In circumstances when your Scooter is stored in your car etc., your batteries can be recharged away from your Scooter with charging cable. The cable links together your battery pack and Charger. Simply connect the 3-pin plug on your battery pack, Connect your Charger to a convenient wall socket, switch on your batteries are now being recharged away from your Scooter.

FREQUENTLY ASKED QUESTIONS

Why do my batteries require recharging?
Batteries are the fuel tank for your Scooter. They provide the vital energy to power your vehicle. When you ride your Scooter, the drive motor consumes the energy stored in the batteries. The battery's energy is gradually reduced over the period of driving time and will need to be replaced before you can use your Scooter again. Similar to the situation with a motor car, in that you need to replenish the fuel as it is used up as energy, likewise with your Scooter, you need to replace the used battery energy by re-charging the discharged battery cells.

How does my Charger work ?

Your battery Charger is an intelligent automatic charging instrument. Your Charger's robust framework contains a number of quality components; namely a transformer, rectifier and complex control circuitry. The Charger receives the 230volts domestic electricity supply via a standard 3-pin wall plug and reduces this voltage down to 24 volts via a transformer. At the same time it rectifies the A.C., alternating domestic current into D.C., direct current. This matches exactly, the voltage characteristics stored by your Scooter's batteries. Your Charger automatically controls the re-charge cycle from the moment that you switch it on to the moment the green 'Charge Complete' light on the face of your Charger illuminates.
When your battery's voltage is very low, the Charger will work extremely hard to replenish the spent energy. This is called the 'Bulk Charging' stage. As the battery voltage approaches 90% of the full charge capacity, the Charger reduces its output for the final stage of the re-charge cycle. The time taken from switch-on to the end of the bulk charging will vary, depending on the amount that the batteries have been used, or in time their age. At this point a timer is automatically started, to regulate the final stage of the charging cycle, this set time ensures maximum capacity and battery life.
The length of time to re-charge your batteries will vary from 4 up to 6 hours. This variation in time is due to the following factors:

1. Depth of discharge - The amount of energy you have removed from your batteries when driving your Scooter.
2. Battery age - This is due to the changes in their internal electrical resistance. Note: very old batteries may take longer to fully recharge.

Where can I re-charge my batteries ?

In most safe domestic environments, i.e. your house, garage or shed. Do not expose to rain or spray - for indoor use only. Later on in this information, there is reference to the way temperature variations can affect the performance of your vehicle. When charging your batteries where reasonably practicable, ensure that the battery Charger is close to the vehicle being charged so that the temperature of the battery Charger and batteries are almost compatible. For example, a vehicle may be outside whilst the battery Charger is inside. It is possible in this situation that the battery Charger will sense the inside temperature, whereas the batteries on the vehicle will be at the outside temperature, resulting in an undercharged situation. This situation must be avoided.

How often must I re-charge my batteries ?

Many factors come into play when deciding how often to charge your batteries. You may use your vehicle all day on a daily basis or you may not use it for weeks at a time. Other factors such as driver and baggage weight, smooth or rough terrain, flat areas or inclines and speed must all be considered.
With these variables you should concern yourself with two questions: HOW OFTEN should I charge and for HOW LONG? The Charger is designed so that it is impossible to overcharge your batteries. If you follow the guidelines below, your batteries will provide safe and reliable operation.

1. If you use your vehicle during the day. put it on charge as soon as you have finished using it. The Charger is fully automatic so it will not overcharge your batteries. Your vehicle will be ready each morning to give you a full days service. It is recommended that you charge your batteries after daily use until the green 'Charge Complete' light illuminates.
2. If you use your vehicle infrequently (once a week or less) you should charge it at least once per week until the green 'Charge Complete' light illuminates.
   Remember: Keep your batteries fully charged and avoid deeply discharging them.
3. Storing batteries : Batteries should always be stored fully charged. Check once a month and recharge fully if needed. Sealed batteries can hold their charge for approx. 6 months. Always disconnect battery leads. If they are left connected on the Scooter, remember key switches, meters, lights and electronic circuits can drain the batteries rapidly. It is advisable to disconnect the batteries for prolonged storage. Store in a warm, dry room.

How can I ensure maximum battery life ?

Simply put, a fully charged battery is a happy battery! A fully charged battery will provide reliable performance and extended battery life, so keep your batteries fully charged whenever possible.
Handling your batteries Extra care must be taken when handling batteries, if you decide to dismantle your vehicle for transportation etc. Dropped batteries, even from a very small height, can lead to damage of the internal components, causing premature cell failure. Your batteries are sealed and do not require maintenance. Do not force open the valves in the battery top.

Disposal

caution: Used batteries must not be disposed of by means of a domestic refuse disposal unit (dustbin) etc. Please contact your Dealer to dispose of used batteries. Please note, he may charge for this service.

BATTERY WARRANTIES

The batteries fitted to your vehicle are guaranteed against a manufacturing or material defect for 6 months. Any battery faults due to a defect in manufacture or materials will be obvious within a few weeks of use. Your batteries are not guaranteed to perform to full capacity for 6 months. This will, of course be dependent on the actual use of the vehicle and how often the batteries are cycled i.e. discharged and charged. Gradual deterioration in performance and reduction in range is normal and associated with fair wear-and-tear, misuse or accidental damage. Under these circumstances, the warranty will not apply. It is a fact that some users due to their hectic lifestyle, weight or operating conditions, may wear their batteries out during the original battery manufacturer's guarantee period due to extensive use of their Scooter. This is termed 'Cycle Life'. Batteries have a defined number of discharge cycles they can make i.e. the more times you use your Scooter the more cycles your battery will make - the shorter their life span. If you take time to run-in your batteries properly, it will be worth it. Remember: how long your batteries will provide service is quite often a reflection of the care they receive. This is how to run-in your new batteries:

1. Fully recharge any new batteries prior to your initial use. This will bring your battery up to about 88% performance.
2. Ride your vehicle around the local area. Do not venture too far away until you become accustomed to the controls and feel of the vehicle. This will gently run-in your batteries.
3. Give your batteries another full charge and run the vehicle again. The batteries will now perform to over 90% of their full potential.
4. After ten to fifteen charging cycles, the batteries will top off at 100% charge and last for an extended period due to your patience and care in the first few days of operation.

How can I get the maximum operating time per charge ?

Rarely do we have an ideal driving situation such as a smooth, flat, hard terrain with no wind or curves and warm temperatures. More often, we are presented with hills, uneven and loosely packed surfaces, curves, wind, cold and heavy loads. All of these factors will affect the distance or running time per battery charge.

Here are a few suggestions for obtaining the maximum range per charge:

1. Always charge your batteries fully prior to your trip. It is a good idea to keep your Charger connected when the 'Charge Complete' (green) light is illuminated in the 'Top-Up' mode.
2. Plan your trip in advance to avoid inclines, kerbs and soft surfaces.
3. Limit your baggage weight to essential items.
4. Try to maintain an even speed to avoid stop and start driving.
5. Ensure recommended routine servicing of the vehicle's components, i.e. motors, brakes, electrical connections etc., is carried out as instructed in this Users Instruction Manual.

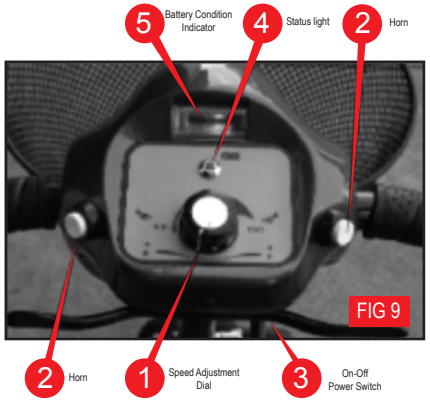
⚠ Warning: When working or disposing of your batteries

1. Do not allow metal objects to short out the terminals, your battery could explode causing you injury.
2. Do not allow your batteries to freeze. If frozen allow them to naturally thaw out before charging, failure to observe this warning may damage the batteries.
3. If you need to replace your batteries, contact your **Freerider** Agent. Only batteries supplied as original equipment on your machine will give you the best performance. When charging batteries make certain the positive and negative terminals are correctly assembled. Failure to observe this warning may cause an explosion, short circuit or fire.
4. Always handle batteries carefully, they are heavy, it may require two people for lifting. Wear protective gloves and glasses when handling.
5. Dispose of worn out batteries carefully, contact your local waste disposal authority.

OPERATING YOUR FR168-3A3/4A

CONTROL FEATURES

Your controls are located on the handlebar console (see Fig 7) they are:



1. Speed Adjustment Dial: This allows you to pre-select your desired top speed. The dial is proportional to speed and can be set anywhere between minimum ('min') and maximum ('max') increments. Turn the dia knob anticlockwise to minimum for a very gentle operation, and clockwise towards maximum to increase your speed.

   NOTE: When attempting to climb obstacles, you will need to set the dial to a high setting. Remember the Higher position you set your speed dial to, the faster your Scooter will travel.
2. Horn Buttons: (yellow). Sounds a polite warning signal.
3. On-Off Power Switch: Located at the lower right side of the control console. Insert the key and turn clockwise. You will note after a second the needle on the battery state indicator moves towards the green sector and the green status light illuminates. Your **FR 168-3A3/4A** is now ready to drive. To switch off your machine turn the key anticlockwise. Remove the key when your vehicle is left unattended. Do not attach heavy additional keys to your key ring, the weight can damage the switch unit.

⚠ **Caution: Do Not** switch to 'off ' when your **FR 168-3A3/4A** is moving. Failure to observe this warning will result in the motor brake being applied suddenly and placing you in a dangerous situation.

You should only switch 'off' when in motion in the case of an emergency. Continual use in this mode may cause undue stress to the drive system and damage the main electronic speed control unit. Be extremely cautious on slopes. Sit upright in your seat or your machine could become less stable.

Sleep Time: When you rest your **FR 168-3A3/4A** Scooter with the electronics switched 'on' you are using valuable battery power. Your **FR 168-3A3/4A** Scooter will automatically go into a sleep mode to preserve battery energy after approximately 15 minutes, the battery indicator and green status light goes off. To start your Scooter again simply switch the key switch to 'off' and back to 'on' again, your Scooter is now ready to go.

4. Status Light: When you turn your **FR 168-3A3/4A** Scooter on the green light on your console will illuminate at a constant rate. The status light is connected to a very sophisticated diagnostic system which can identify faults which could occur on the main speed control system or some other part of your Scooter's electronic drive system. For instance if your batteries run low in power, the status light will flash slowly a t one flash a second; this indicates your batteries need recharging.

If you notice the status light flashing at two flashes per second, you are being notified that the battery voltage is too low and you must stop using your Scooter at the earliest opportunity. Your status light has nine similar flashing diagnostic signals, reference to these diagnostic codes is found under 'Fault Finding' at the rear of this manual.

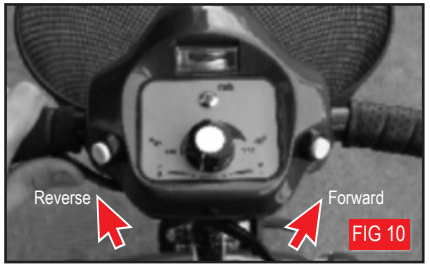
5. **Battery Condition Indicator:** Located at the top of your console. When your Scooter is switched on, the need les on the gauge will move a cross the scale from the left 'red' sector towards the 'green' sector, indicating the state of charge in your batteries. As the power is used up in your batteries the needle will move towards the red sector indicating the state of charge at that precise time. When the needle is fully over to the right (green sector), the batteries are fully charged. When the needle falls towards the red sector your batteries are losing power, but you will still have power to spare. When the needle falls into the red sector your batteries are low in power and need to be re-charged, although you will still have approximately half-an-hours normal flat pavement driving in reserve. It is not recommended to use this power regularly as it will shorten battery life. It is wise to re-charge your batteries when the needle enters the red zone (see Batteries and Battery Charging section of this manual). **NOTE:** When driving up a slope or similar obstacle your **FR168-3A3/4A's** motor will be working hard, the battery gauge will move into the red sector, it will return towards the green sector once the load on your motor is reduced, this does not indicate low batteries.

FORWARD, REVERSE CONTROL LEVER (Wigwag)

Located under the handlebar grips (**Fig10**). Your speed for forwards and reverse motion and braking is controlled here. The right thumb lever moves your FR 168-3A3/4A in a forwards direction and also controls the rate of speed by the proportional amount o f pressure applied. The left thumb lever moves the FR 168-3A3/4A in a reverse direction and controls the rate of speed by the pressure applied. The lever when released will return itself, and you will gently stop. You will note that you can obtain the reverse of this procedure by pulling the levers backwards with your thumb.

Warning: Do not hang bags etc over the steering handlebars which could interfere with the movement of your control lever. Failure to observe this warning could put you in a dangerous situation.

Note: Your approved Freerider distributor can modify your vehicle for left-hand forward operation use.



⚠ Warning: If you are not an accomplished outdoors powered vehicle driver, we strongly recommend that you first practice in an open, safe area, free from traffic, preferably with a **FR 168-3A3/4A** who can assist you.

Ⅶ . Comfort Adjustment

Before setting out on your **Freerider FR 168-3A3/4A** you need to make sure that your seat is in the correct driving position.
Your **Freerider** distributor will set the seat to the correct height for your individual needs (note: see warning page 7)
The seat has seven basic adjustments to assist your comfort.

1. **Seat Lock Lever: (Fig11).** This allows the seat to swivel through 360° and lock in a convenient position. The locking lever is located under the left side of the seat. **NB:** It can be re-located on the right side for your convenience. Pull up fully to release the seat allowing rotation. Release lever to lock the seat into the desired position.

⚠ Warning: When driving, the seat should be locked in the straight ahead position.

⚠ Warning: The seat base has a series of threaded holes for universal mounting, on no account must your **FR 168-3A3/4A** seat be relocated from the original factory setting. Failure to observe this warning will put you into an unstable and dangerous situation which could cause you harm.

2. **Armrest Width Adjustment:** On each side at the rear of the seat you will find a large black knob (**Fig12**). By simply loosening this knob you are able to slide the armrests in or out to whatever width you desire. Re-tighten the knobs fully. You may need a friend to assist you with this initial setting up operation. This may extend the width of your Scooter.

⚠ **Caution:** The backrest of your seat will not fully fold forwards if the armrests are positioned too closely towards one another.

⚠ Warning: Do not drive your **FR 168-3A3/4A** with the arms removed or in the raised position.

3. **Armrest Angle Adjustment: (Fig 13).** The armrest angle can be adjusted individually to suit your needs. To make adjustments to the armrest angle you will need two 13mm spanners (not provided). Lift the arm upwards, you will note the adjusting bolt. First loosen the locking nut, rotate the bolt in or out until the required angle is found, lower the arm and check the angle for comfort; re-adjust as necessary. Finally tighten the locking nut.

⚠Warning: When lowering the arm make certain clothing or fingers are not positioned under it.

FR 168-3A3/4A SEAT (Fig 14)

The seat as fitted to your **FR 168-3A3/4A** Scooter, has a fold down backrest. The seat has four height positions. Your **Freerider** dealer will position the seat to allow you the most comfortable driving position,.

4. **Seat Height Adjustment:** You may need to alter the seat height setting at a later date, please follow these instructions.
   1. Remove your seat from the Scooter by lifting the seat locking lever and lifting the seat clear of the vehicle (see Fig 11).
   2. With the aid of a 17mm spanner (not supplied) loosen the 10mm seat clamp fixing bolt (see **Fig 15**).
   3. Remove the 10mm fixing bolt and reposition the bolt into one of the four preferred location holes of the seat mounting tube

4. Re-tighten the 10mm fixing bolt. Refit the seat onto your **FR 168-3A3/4A** Scooter.

⚠Warning: Do not have the seat set too high, you must be able to place both feet firmly on the Scooter's floor area. Stability will be reduced the higher your seat is set on the mounting tube. Always take great care when cornering, lean into the corner to achieve the best stability from your Scooter.

HANDLEBAR ADJUSTMENT

The handlebar of your **FR 168-3A3/4A** is designed to allow you to position it in a comfortable driving position. It can be locked into numerous positions or unlocked to move freely for transportation.

The handlebar lock is operated by a black lever positioned on the right hand side of the handlebar (see Fig 6, page 8). To release the handlebar from a locked position pull the black lever upwards, the handlebar will now move freely, but under mild tension.

To lock the handlebar into a comfortable driving position, simply push the black lever downwards until the handlebar is locked firmly into position.

With the combination of the seat adjustments together with the handlebar movement, you should find a suitably comfortable driving position.

⚠Warning: Always make certain the handlebar locking lever is fully down and the handlebar is securely clamped onto the chrome support plates before driving your Scooter. For service adjustment of this part, refer to the Care and Maintenance section of this manual.

VIII DISASSEMBLY AND ASSEMBLY

DISMANTLING YOUR FR 168-3A3/44

To enable your **FR 168-3A3/4A** Scooter to be carried in a suitable estate or hatchback car (**see Fig 16**), follow these simple instructions for dismantling your scooter. This procedure can be carried out quickly and without tools. Fitting is as follows:

DISMANTLING PROCEDURE

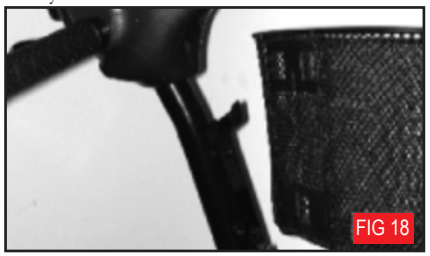
Drive your **FR 168-3A3/4A** close to the vehicle into which you are about to load it. You may need some assistance to lift the components once your machine is dismantled.

1. Switch off your scooter, First remove the seat by releasing the 'black' locking lever and lift the seat upwards slightly twisting. This will release it from its mounting tube.
2. Lift the black battery pack positioned to the rear of your foot mat (**Fig 17**)

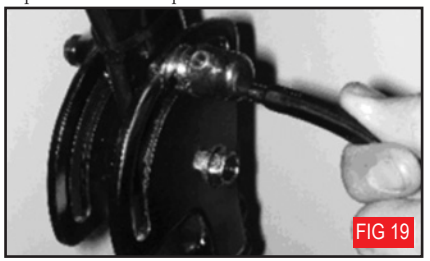
3. Carefully lift up battery pack. Use two hands for this operation, one on the strap and one to steady the battery.
4. Lift the front wire basket from the mounting bracket on the handlebar cover, you will note this mounts on three clips (**Fig 18**).

Place the batteries on a firm and safe surface. Your batteries are sealed and cannot spill if tipped over. Always carry the batteries upright.

⚠Warning: Do not place metal objects over open battery terminals. BEWARE of short circuits.



5. Lower the handlebars by releasing the locking lever (**Fig 19**). The handlebar will rest close to the floor mat. Note place a soft piece of material under the painted console for protection.



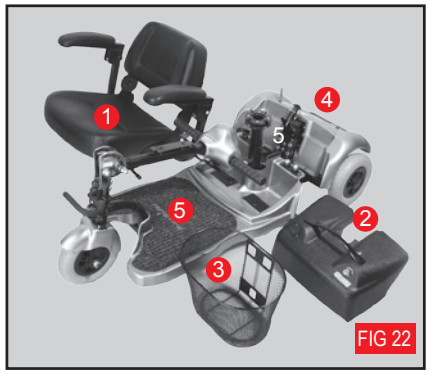
6. Locking Mechanism: The front and rear chassis components are locked into position with a spring loaded pin (**fig 17**). The spring loaded pin locates into a hole in the rear of the front chassis unit preventing the two chassis components from lifting apart during driving. To unlock the two chassis parts rotate the locking mechanism knob in an anti-clockwise direction indicated by the "loosen' arrow. Turn the knob approximately two full turns until you can lift it upwards against the spring pressure.
7. Lower the handlebars by releasing the handle bar lock (see fig 6 page 8). with the handlebars positioned in the straight ahead position, place the steering locking pin (fig 18) through the front location hole. The handle bars are now prevented from swinging during transportation.

⚠Warning: You must never attempt to drive your **FR 168-3A3/4A** Scooter with the steering pin fitted. Failure to observe this warning will put you in a dangerous situation.

8. You are now ready to separate the two halves of your **FR 168-3A3/4A.** Before you carry out this operation, have you remembered to unfasten the electrical connectors? Failure to observe this warning could result inunnecessary Damage.

Carefully separate the two halves of your **FR 168-3A3/4A** by pulling upwards on the release mechanism knob (**fig 19**) and tilting backwards the rear chassis. Lift the front chassis upwards with the aid of the 'C' handle, until the front chassis is completely separated from the rear chassis (**fig 21**).

Your **FR 168-3A3/4A** is now dismantled into five basic parts (**fig 22**).



1 The Seat
2 The Battery pack
3 The Basket
4 Rear Chassis Powered Unit
5 Steering Platform Chassi

Caution: Protect clothing when lifting Scooter parts, some components may have lubricating fluids on their surfaces. Work out the best position to stow each part of your machine, this will vary with different car designs. An old blanket can be used to stop the various parts rubbing against each other. It is good practice to stand batteries upright and locate them so they do not move and touch the battery posts on any metal framework.

Note: In some small cars the seat my need to be stowed on the rear seat of the vehicle. Use the cars safety belt to secure the seat in position.

Caution: The body mouldings on your **FR 168-3A3/4A** have not been designed for lifting your machine. Use the firm metal lifting handles only.

Warning: Take care when lifting heavy parts. If in doubt always seek assistance when lifting parts.

BASIC FAULT FINDING

If your **Freerider FR 168-3A3/4A** will not start:

1. Check the power key switch is turned fully 'on'. If it is, the battery condition indicator meter displayed on your console, will be operating. If the first red status light is flashing once per second, charge your batteries.

If the battery condition meter fails to operate when the key switch is in the 'on' position, check the following:
1. Make sure the battery charger is not plugged into the tiller charge socket, this will prevent drive.
2. Check the 'circuit breaker'(Fig 23): If your **FR 168-3A3/4A** stops for no apparent reason, it is probably due to the circuit breaker disconnecting from the speed control electronic box.
   On rare occasions, a temporary overload on the electric circuit can occur - for instance when climbing a steep
   incline. If this happens, the circuit breaker which is located on the right side of battery pack. To reset the circuit breaker wait for two minutes to allow the temperature activated switch to cool down.
   Place a finger onto the circuit breaker and press down on the plunger until it remains down. You are now ready to drive again. If the circuit breaker trips up again wait for 5 minutes and try again.

Caution: If you find the circuit breaker is continually tripping out, contact your authorized Freerider dealer.

1. Check the status fault codes (**page 29**) indicated by the green L.E.D. on your console flashing.
2. Check the freewheel lever is fully engaged (see **page 9**). If it is engaged you should not be able to push your machine. If disengaged your status light (green L.E.D.) will flash five times.

If your Freerider does not slow down or behaves erratically:

1. Turn off the power 'on' key switch.
2. Inform your authorized Freerider dealer.

Warning: If you find for any reason your **FR 168-3A3/4A** does not reduce speed when you let go of the forward-reverse speed lever (Fig8, page 9). Switch your **FR 168-3A3/4A** 'off ' with the on/off key. The parking brake will activate immediately and stop your Scooter. Beware the machine will stop very suddenly, brace yourself with the handlebars, sit back in your seat.

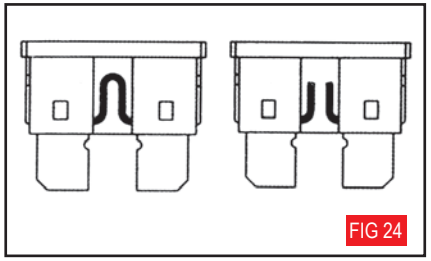
Warning: This operation should only be carried out as an emergency; continual use of this facility will damage the drive transmission and motor brake.
Inform your authorized Freerider dealer before using your machine again.

Warning: If you feel for any reason that your Scooter is not driving correctly or making an unusual noise, stop using the machine. Be safe, contact your Freerider dealer, he will be able to advise you.

CHARGING CIRCUIT FUSES

Two fuses protects your **FR 168-3A3/4A** charging circuit from receiving an overload o f electrical current. The fuse used in the **FR 168-3A3/4A** is the same type which is found on automobiles. In the unlikely event that a fuse should 'blow' and needs replacing (**Fig 24**) use a fuse of a 40amp rating. Please note this size of fuse has been selected to give your Scooter the best protection without premature blowing.

Warning: Do not use fuses with a higher rating than 40amps as this may cause permanent failure to the wiring and wiring connectors or personal injury. The 40amp fuses are located inside the **FR 168-3A3/4A's** Battery pack. The fuse is positioned in a black plastic housing which is sealed by a hinged lid. For access to a fuse remove the twelve screws located in the Battery pack cover, lift cover. Locate and lift the fuse block on it's wire, lift up the fuse lid and withdraw the 'blown' fuse. Replace the blown fuse with recommended 40amp (orange) fuse, close fuse lid and re place fuse block. Reposition battery pack cover, refit twelve screws. **If the fuse continually fails, contact your Freerider supplier.**



CARE & MAINTENANCE

Your **FR 168-3A3/4A** like any other electro-mechanical machine will benefit from regular servicing by your Freerider dealer. You too, can help keep your FR 168-3A3/4A in tip-top condition by following a simple guide to home maintenance.
Note: Only competent people should carry out service work.

SEAT UPHOLSTERY

A damp cloth and a little soapy water will keep your seat, backrest and arms looking smart. Do not use abrasive cleaners as this will damage the coating. Upholstery can be damaged by chemical cleaners. The coating material can also degrade over a period of time due to contamination by natural oils in the hair and skin. Ultra-violet light can also reduce the life of the upholstery coating material. This is a normal ageing process and cannot be guaranteed (see exclusions in the Guarantee Terms).

BODYWORK

The painted bodywork on your **FR 168-3A3/4A** Scooter can be lightly washed with clean soapy water. Do not use abrasive cleaners or strong detergents. This could fade the color, an auto type shampoo works well. Remove salt contact as this is very corrosive to bright metal parts.

Caution: Do not hose down your **FR 168-3A3/4A** with a powerful cleaner. Water could be forced into the electronics and cause permanent damage.

On the painted finish, be cautious not to wash with a dirty cloth as this could scratch the paint finish. Auto polish can be used to keep the paintwork and bright chrome parts in pristine condition.
The metal framework of your **FR 168-3A3/4A** should be cleaned twice a year and any paintwork damaged should be treated to prevent further attack from the elements.
Do not store your **FR 168-3A3/4A** in damp conditions. This may affect the electronics if left for very long periods of time. Moisture, if left unattended can cause deterioration on metal work, protect with proprietary cleaners.

ELECTRONICS

Servicing of the drive electronics and charger should only be carried out by your local **Freerider** service dealer. These units are sealed and should not be opened. **BROKEN SEALS WILL INVALIDATE YOUR GUARANTEE.**

Do not operate your **Freerider FR 168-3A3/4A** in exceptional weather conditions ie. very heavy rain. Cover your machine up, if it is to be left unattended and outside for a long period of time.

Do not drive through deep water with your **FR 168-3A3/4A** This could damage the electronic speed controller. Sea and road salts are very corrosive and should be neutralized quickly.

DRIVE TRANSMISSION LUBRICATION

This unit is factory filled and will not normally need additional lubrication.
Note: Your Freerider FR 168-3A3/4A transmission is filled with a special lubricant. Do not attempt to force grease into the transmission as this will contaminate the original lubrication and will invalidate your guarantee.

⚠ Caution: Take care when handling the transmission, keep well away from clothing. It is normal to find a light film of lubrication around this part.

MOTOR BRAKES

Safety Note: For your own safety, we recommend that you check the function of your **FR 168-3A3/4A** brakes prior to a journey.

Motor Brake: If the motor brake is functioning correctly and the drive is engaged you will not be able to push your machine when it is switched off. Or switched on with the speed control lever in the 'zero speed', central position.
Note: Check the Freewheeling Instructions on page **9** of this manual.

Driving Brake: ⚠ Warning: When you drive your **Freerider FR 168-3A3/4A** and you let go of the speed control lever your **FR 168-3A3/4A** should reduce speed very quickly. If you notice a change in the normal slowing/braking condition of your **FR 168-3A3/4A** and it does not slow down quickly, please do not use your machine, contact your Freerider distributor.

HANDLE BAR BEARINGS

The bearings which control the movement of the steering handle bar may need to be adjusted if up and down movement is noticed in your steering handle bars. The bearings are accessed by lifting the back rubber cover at the base of your handle bars and the front body cover. The bearings are adjusted by first releasing the locking nut anti-clockwise one full turn with a suitable spanner (**Fig. 25**). Turn the upper bearing adjustment nut clockwise, one flat at a time until all of the up and down movement in the handle bars is removed. Retighten the lock nut clockwise into position with a second spanner. Do not over tighten the bearing adjustment nut, as this will damage the bearing tracks.

FIG 25

The handle bar bearings are **NOT** 'Sealed for life' and may require lubrication with a general purpose bearing grease on an annual basis.

TIRES

Check the condition of your tires regularly. Look for signs of wear, cuts and foreign objects lodged in the tread (**Fig 26**)

⚠ Warning: Your **Freerider** is designed with 'split' wheel rims. Do not rmove wheels bolts with the wheel inflated.

FIG 26

TIRE SERVICING REAR WHEEL

To remove a rear wheel from your **Freerider FR 168-3A3/4A** for the service of a tire carry out the following instructions (only competent people should carry out this procedure).

1. Switch off your **FR 168-3A3/4A** and remove the key.
2. Using a suitable body stand, lift the side of the vehicle you wish to service off the ground. Place the stand under the metal chassis. Care must be taken when lifting heavy loads, you may need a friend to help you. Care should also be taken when working on a stand. **please be safe.**
   Do not lift by the plastic bodywork.
3. With the aid of a 19mm spanners (not supplied) remove the center hub nut and washer (See **Fig 27**).

FIG 27

4. Slide the wheel from the mounting axle. Rear wheels are fitted to the drive axle via a hub which locates onto a key. These wheels fit tight onto the axle and may need some pressure from a bearing puller onto the wheel hub to release them from the axles. Look for spacing washers and take care not to mislay the drive key which fits between the wheel hub and the axle shaft.

To re-assemble the wheel simply follow the above procedure in reverse order noting the following points:
1. Make certain that you replace any spacing washers and keys in the order that they were removed.
2. Locking Nut: The special nylon 'locking' center hub nut may lose it's effectiveness when it has beeen removed over a number of times. If the plastic locking ring at the end of the nut becomes worn or damaged, then the nut should be replaced with a new part obtained from your Freerider Agent.

BATTERIES

Keep your batteries well charged (see Battery Charging section of this manual). Keep batteries clean and in a dry frost-proof place. Your **Freerider** Agent will be able to annually test your batteries for their state of service.
Note: a charge may be made for this service.

IMPORTANT: It is not possible to predict the life expectancy of your batteries. This is mainly due to the different workloads a battery can be subjected to.
Some **Freerider FR 168-3A3/4A** users will use their vehicle every day and for long periods of time. Their batteries will receive a near total discharge, and the life of the batteries will be short (less than 12 months in some cases).
Other **FR 168-3A3/4A** users will use their machines less frequently, putting their batteries through a less demanding discharge lifestyle. These batteries will probably have a longer life in excess of 12months. This can only be a general guide and one cannot be more specific, due to other factors such as; motor loads, tire pressures, general service factors, working conditions, periods of non-use and abuse etc.

Pb When you need to purchase batteries, always insist on the model fitted as original equipment to your **FR 168-3A3/4A.** Do not use less expensive car starter batteries. If in doubt, consult your local **Freerider** authorized agent. ⚠ Warning: Correct disposal of exhausted batteries is advised.

Please note: The charger supplied with your **Freerider** Scooter is specifically designed for sealed type batteries and may not work correctly with other battery designs. (See also Batteries and Battery Charging section of this manual).

LUBRICATION

The Freerider **FR 168-3A3/4A** has been designed with low maintenance in mind. Wheel bearings and steering bearings* are sealed for life. The following points will need checking/lubricating at the following service intervals: *(Read also 'Hanldebar Bearings' page 24 and 'Lubrication' page 26)

RECOMMENDED SERVICE INTERVALS

DAILY Check the following:
- Operation of motor brake (see **page 11 & 24**)
- Operation of driving brake (see **page 11 & 24**)
- Operation of seat lock (see **page 7**)
- Tire condition (see page **24 & 25**)
- Front basket and any carrying accessory is firmly attached (see **page 17, Fig 17**)
- Batteries are fully charged (see **pages 20-25**)

⚠ Caution: Only drive your **FR 168-3A3/4A** Scooter if it is in full working order.

WEEKLY Check the following and adjust as necessary:
- Check chasis locking mechanism (see **8 page 18**)
- Arm rest tightening knobs (see **page 6**)
- Allow battery charger to go through a full recharge cycle until the green light is illuminated (see **pages 21-26**)
- Clean paintwork with auto shampoo. Do not use a high pressure hose. Wax painted and bright metal parts.

SIX MONTHS Check and adjust as necessary:
- Tire wear, replace as necessary
- All fasteners and fittings for sound function
- Tension of handle bar lock and hinge bolt
- Battery connections
- Inspect all electrical plugs and sockets for damage and good contact and fit.

Lubricate the following:
- Wig-wag accelerator lever pivot point (see Fig 29)
- Spray metal parts with moisture repellent (WD40)
- Seat lock lever pivot bolt
- Seat rotation, grease face of seat post and pivot pin at base of seat.
- Seat arm hinges
- Inspect, lubricate and adjust upper handle bar steering bearings

FIG 28

ANNUALLY Check the following and adjust as necessary:
- Front wheel bearings for wear
- Handle bar bearings

- Chassis for sound welds
- Rear Drive wheel hub key
- All wheel bolts
- Drive axle securing nuts
- Motor mounting bolts
- Magnetic motor brake disc and function
- Main wiring loom for damage
- All steering components
- Clean chassis and repaint any exposed parts
- Lubricate on/off power key barrel with
- Replace any damaged axle seals
- Cycle test charger for full operation function
- Cycle test batteries for operating capacity (This test can be performed by your Freerider Agent)

NOTE: The items listed under the weekly and six months inspection should be incorporated into this annual inspection.

LUBRICATION

Use a general purpose light lubricating oil on moving parts. All wheel bearings are factory sealed and should not normally need lubricating. Handle bar bearings should be lubricated with a general purpose bearing grease.
Your drive axle is factory filled with a special lubricant and will not normally need replacing.

⚠ Caution: Do not mix other lubricants with this factory fitted drive axle lubricant. Failure to observe this caution will invalidate your guarantee.
Please note: These service intervals are a guide, more frequent use of your Scooter may require adjustment to these suggested intervals.

RECOMMENDED AREAS FOR ADJUSTMENT
STEERING COLUMN ADJUSTMENT

The steering column locking system works on a 'cam' principle to lock the column in the de sired driving position (see **Fig 7 page 8**).
If you notice the column is not firmly held when the black cam operating lever is fully down, follow this procedure to readjust the 'cam' tension:

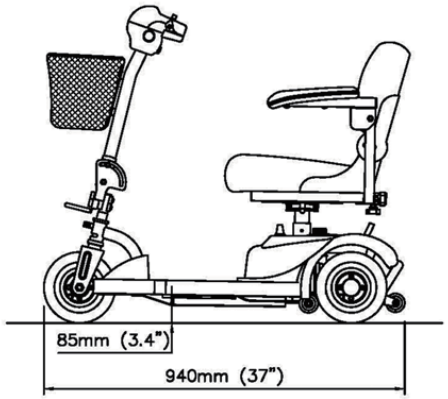
1. Push steering column forward as far as it will go with the locking l ever released, ie. pushed upwards. Support steering column.
2. With a 10mm spanner (not supplied) loosen the locking nut positioned on the opposite side to the black locking lever. (Fig. 32)

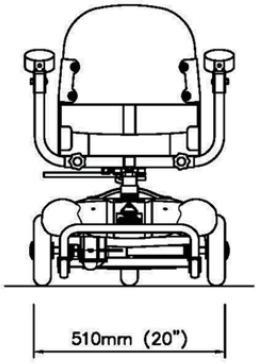
3. Next to the locking nut is a chrome threaded 'clamping nut' this has a slightly tape red shape. Turn this clamping nut clockwise approximately a quarter of a turn.
4. Push the 'black' clamping lever down and test that the tiller is tightly held in place; adjust 'clamp nut' until correct tension is achieved on clamp plates.
5. Tighten locknut with 10mm spanner.

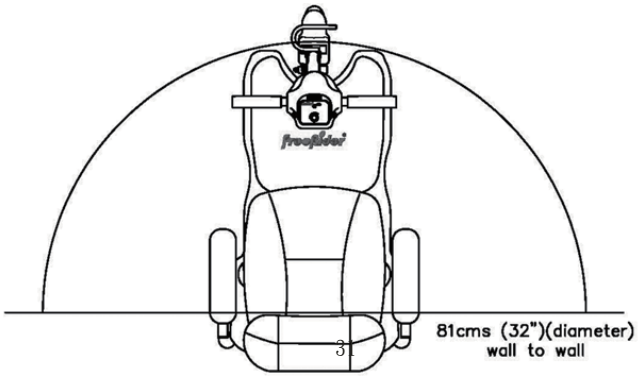
TECHNICAL SPECIFICATION

168-3A3 SPECIFICATIONS	
Overal length	94 cm/37 inches
Overal width	51 cm/20 inches
Ground clearance	8.5 cm/3.4 inches
Maximum load	114 kgs/250 lbs
Range up to	16 km/10 ml
Total weight (excl. batteries)	32.5 kgs/78 lbs
Heaviest part	12 kgs/26 lbs
Wall to wall turning radius	81 cm/32 inches
Maximum Speed	6 km/ 4 mph
Battery	12 Amp

168-4A SPECIFICATIONS	
Overal length	99 cm/39 inches
Overal width	51 cm/20 inches
Ground clearance	8.5 cm/3.4 inches
Maximum load	114 kgs/250 lbs
Range up to	16 km/10 ml
Total weight (excl. batteries)	39 kgs/85 lbs
Heaviest part	14 kgs/31 lbs
Wall to wall turning radius	116 cm/45.5 inches
Maximum Speed	6 km/ 4 mph
Battery	12 Amp







SERVICE HISTORY

This sectio n is designed to assi st you in keeping a record of any service and repairs to your **Freeder** Scooter. Should yo u decide to seel or exchange your Scooter in the future this will prove most helpful to you.Your Se rvice agent will also benefit from a documented record and this book should accompany the Scooter when service or repair work is carried out. The service agent will complete this section and return the book to you.

DETAILS OF WORK CARRIED OUT	DEALER STAMP

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